COVID and IR

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Disclosures:

None.

Outline:

- COVID and evolution over time

- COVID and effects on a clinical IR practice

- COVID and IR clinical manifestations

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COVID Evolution:

- **Similar to everyone – frontline workers and rest of population**

- **Components of fear – different from pre-existing pathogens**

- **Rapidly changing environment in the IR suite, the hospital, local, and regional levels**

- **COVID Fatigue**

Cases by Date of Onset
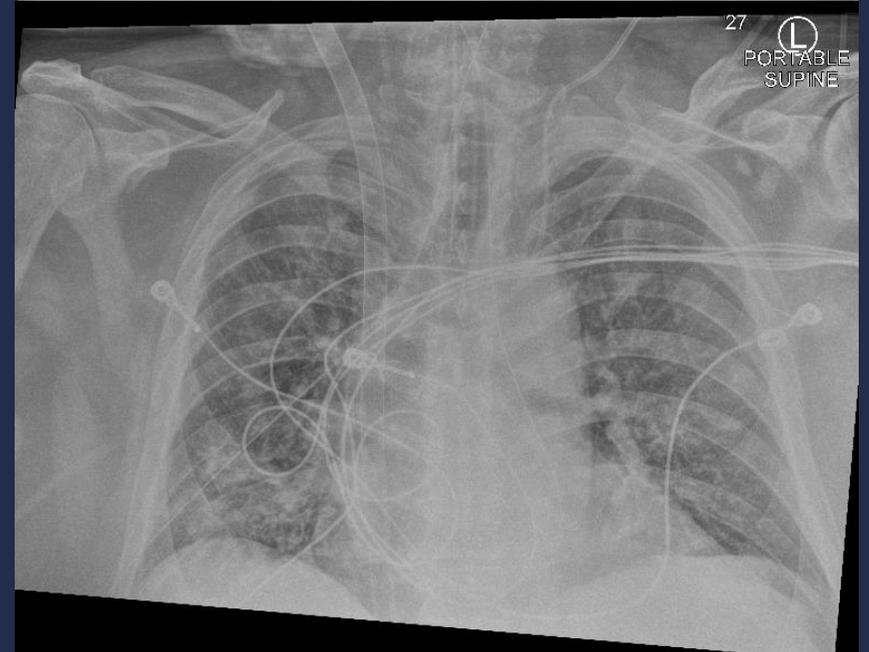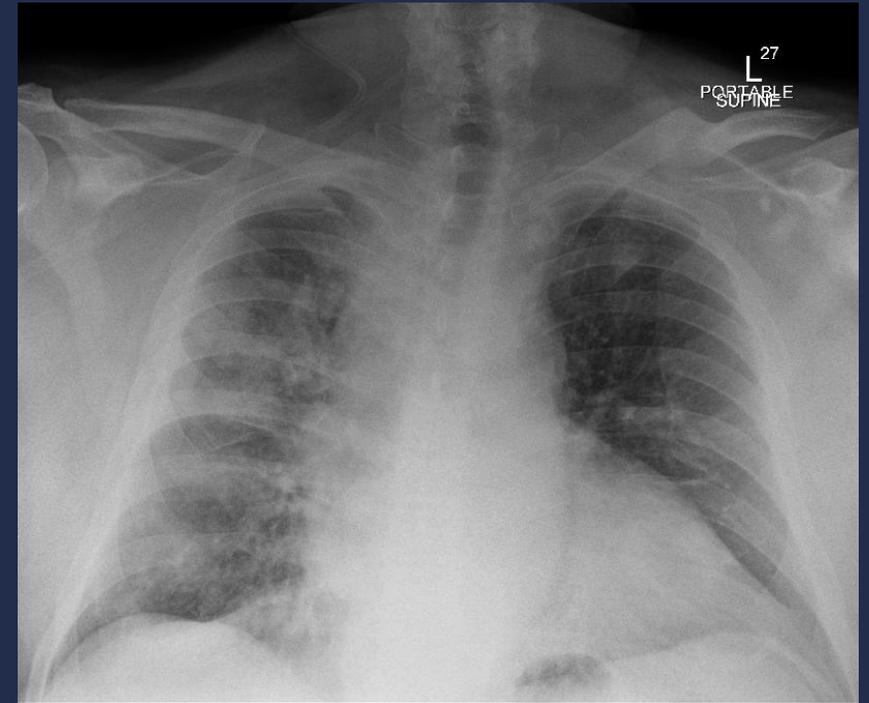
COVID Evolution:

- **Stages of grief – DABDA?**
  - **Denial – likely won't come to our hospital**
  - **Anger – why is it here?**
  - **Bargaining – At least I don't do intubations**
  - **Acceptance – I am probably getting COVID.**
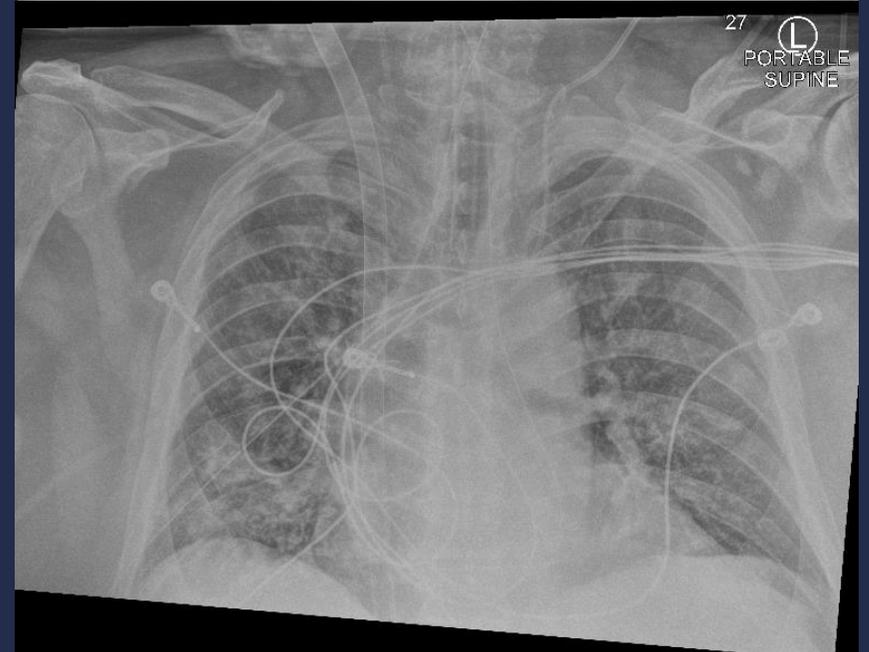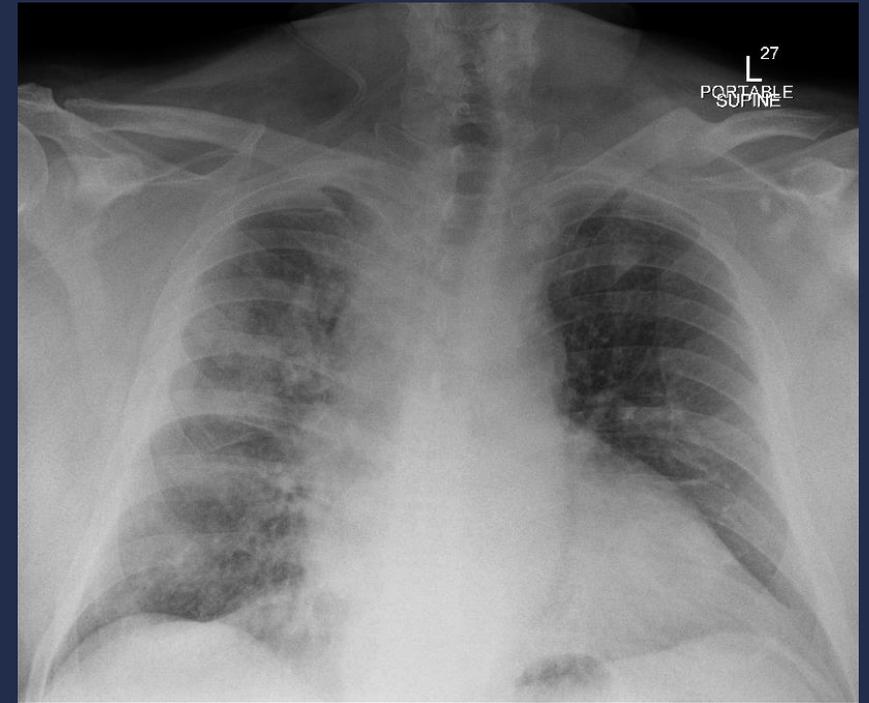
COVID and IR Effects:

- How do you accommodate COVID patients?
- Location
- Manpower
- Inventory

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COVID and IR Effects:

- **How do you accommodate COVID patients?**

- **Location**

- **Manpower**

- **Inventory**

The Society of Interventional Radiology (SIR) recommends the following:

- **Cancel all procedures except for those that are urgent or emergent.** As the practice of IR is broad, specific nuances should be considered during the medical decision-making process including the health status of the patient, medical acuity and expected outcome, and local logistics pertaining to resource allocation. While some practices in endemic areas may already be working in an emergency triage model, we urge all IR physicians to begin the triaging process by engaging with their hospital administrations and colleagues within other medical specialties to classify procedures into those that are urgent/emergent vs. elective in a manner that best supports their practice situations and community needs. Cancellation and deferment of elective cases ensure that we contribute to maximizing hospital resources for the sickest patients. Communicate often to review measures as this is a dynamic situation.

- **Minimize the use of essential items that will be needed to care for patients in the event of a surge of cases.** This includes, but is not limited to, ICU beds, PPE, ventilators. Limiting the number of individuals caring for patients (essential personnel only) now minimizes current PPE utilization, allowing for conservation and sufficient supply when needed. Many locations have experienced PPE shortages, so securing PPE materials now will preserve them for future use for our frontline staff.

- **Screen all patients for high-risk exposure**[v] or symptoms according to the CDC guidelines (updated March 24[vi]), which includes the recommendation to follow local guidance for testing where the occurrence of community transmission of COVID-19 infections is high (CDC Priority 1 testing). **If local guidance requires testing prior to surgical procedures, this same standard should apply to procedures performed in the IR suite.**

- **Optimize-staffing and consider cohorting teams to facilitate social distancing and limit risk of community spread.** Minimize the number of personnel in all treatment rooms and control areas, especially when such places make it difficult for medical teams to stay 6 feet apart from each other.

- **Utilize telehealth services for IR clinic and follow-up visits when appropriate to limit exposure.** Please see the CMS Medicare Telemedicine Health Care Provider Fact Sheet[vii] for additional information.

COVID and IR Effects:

- **Safety of patients and health care providers**

- **Endless protocols**
  - **Protocoled safety**
  - **Too detailed?**
  - **Ephemeral**

COVID and IR Effects:

- **Patient care**

- **Maintain clinical service to all patients**

- **Triage**

- **Delays**

- **Triage and care of comorbid conditions with COVID**
  - **Portal hypertension**
  - **Dialysis work**
  - **Tube patients**
  - **Cancer patients**

Interventional Oncology Caseload by Month
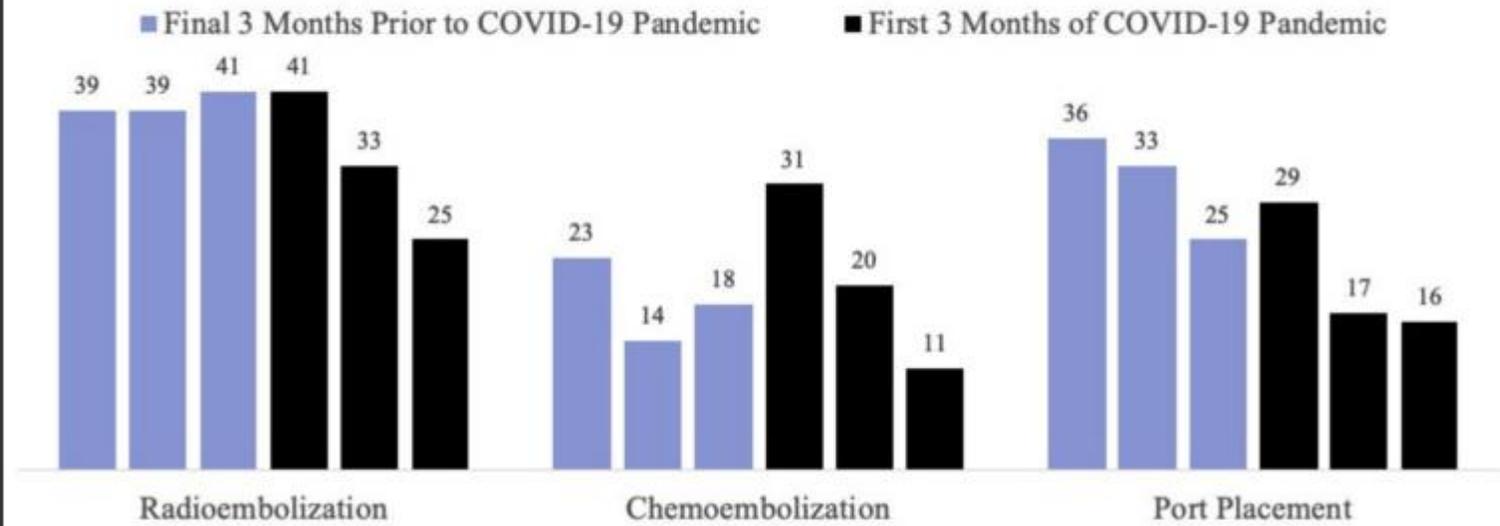
■ Final 3 Months Prior to COVID-19 Pandemic   ■ First 3 Months of COVID-19 Pandemic

Radioembolization: 39, 39, 41, 41, 33, 25

Chemoembolization: 23, 14, 18, 31, 20, 11

Port Placement: 36, 33, 25, 29, 17, 16

COVID and Clinical IR:

- Initial concerns of tremendous vasculopathies and massive need for lines, tubes, and drains

Infection with severe acute respiratory syndrome coronavirus 2 results in coronavirus disease 2019 (COVID-19), which was declared an official pandemic by the World Health Organization on March 11, 2020. COVID-19 has been reported in most countries, and as of August 15, 2020, there have been over 21 million cases of COVID-19 reported worldwide, with over 800 000 COVID-19–associated deaths. Although COVID-19 predominantly affects the respiratory system, it has become apparent that many other organ systems can also be involved. Imaging plays an essential role in the diagnosis of all manifestations of the disease and its related complications, and proper utilization and interpretation of imaging examinations is crucial. A comprehensive understanding of the diagnostic imaging hallmarks, imaging features, multisystem involvement, and evolution of imaging findings is essential for effective patient management and treatment. In part 1 of this article, the authors described the viral pathogenesis, diagnostic imaging hallmarks, and manifestations of the pulmonary and peripheral and central vascular systems of COVID-19. In part 2 of this article, the authors focus on the key imaging features of the varied pathologic manifestations of

COVID and Clinical IR:

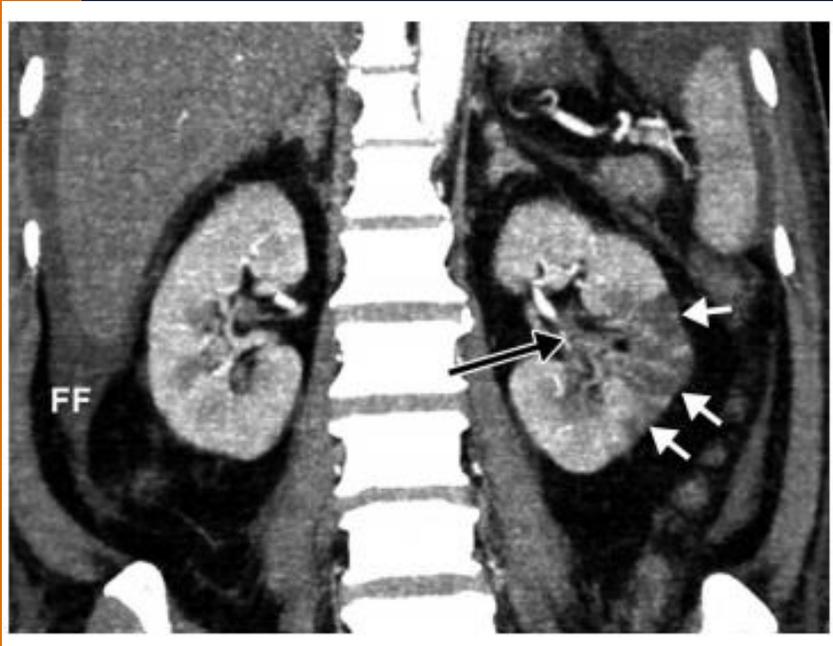- Initial concerns of tremendous vasculopathies and massive need for lines, tubes, and drains

- Evolved into acceptance of standard IR ICU care: hemorrhage, dialysis, infection, and enteral access.

- Occasional more aggressive interventions and complex interventions provoked and/or hampered by COVID
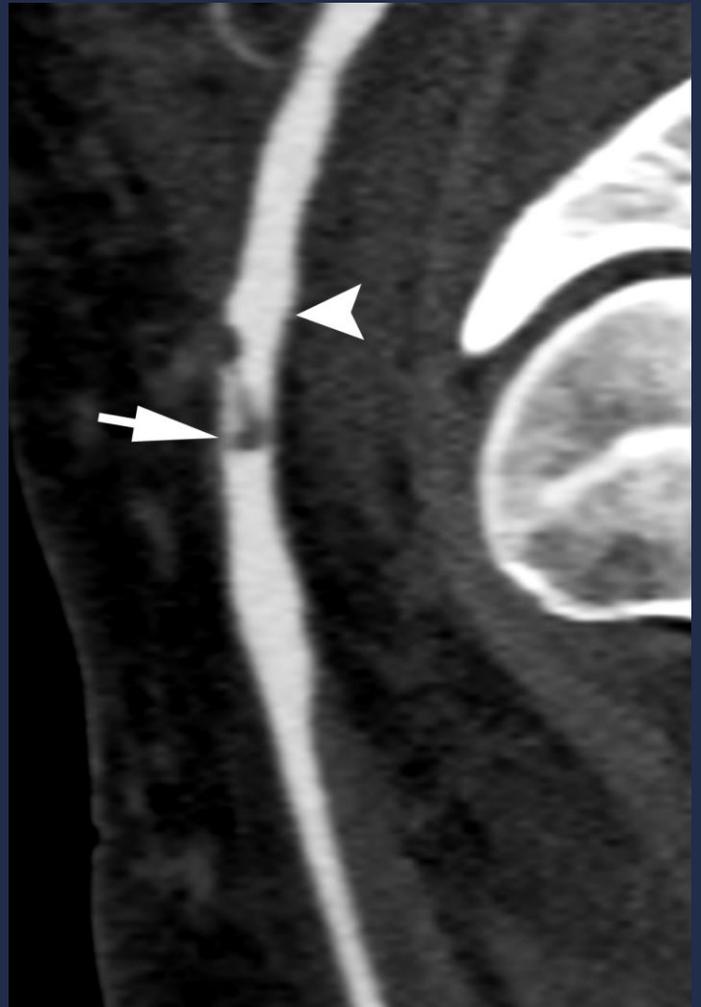

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COVID and Clinical IR:

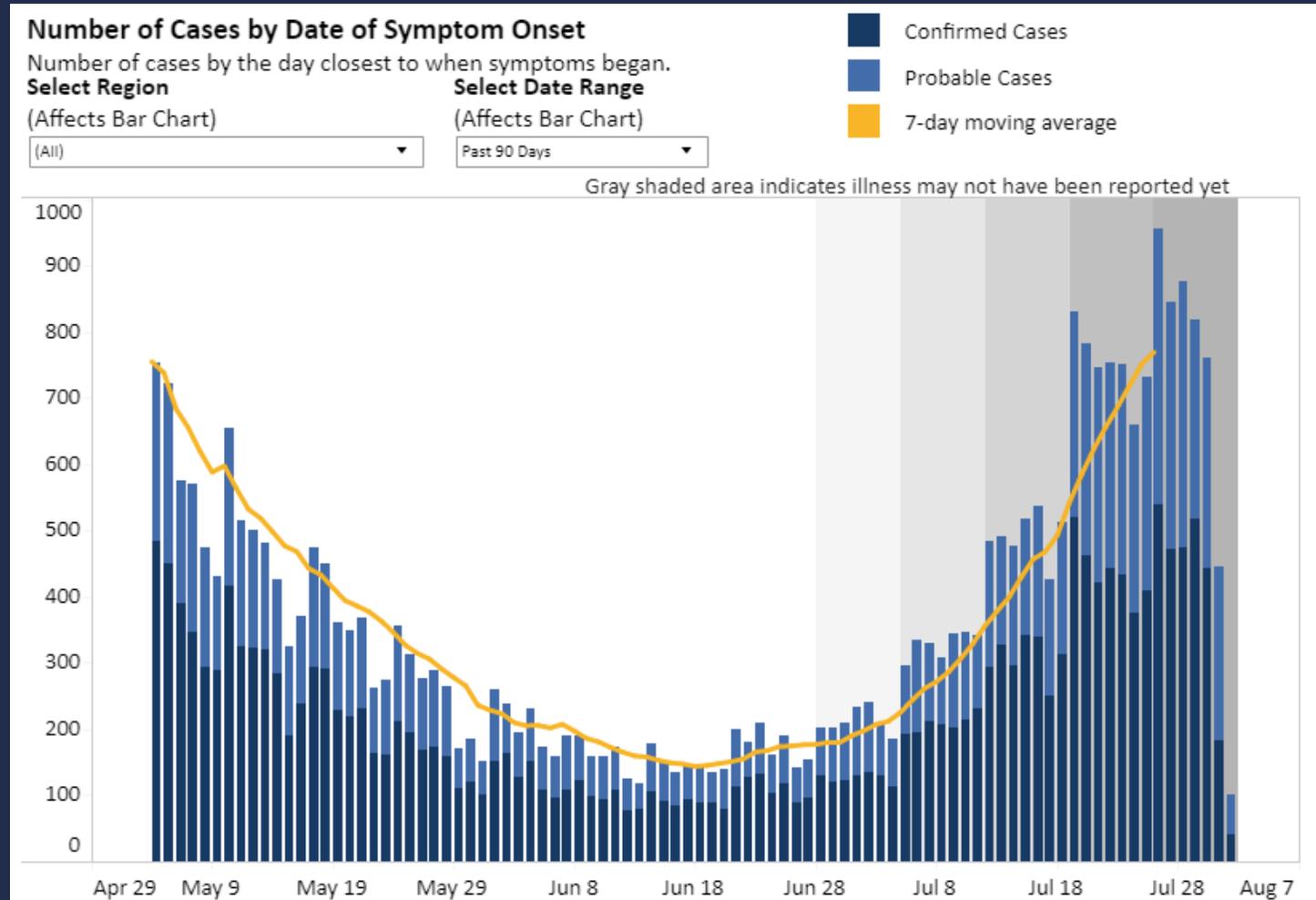- Young male with severe COVID pneumonia.
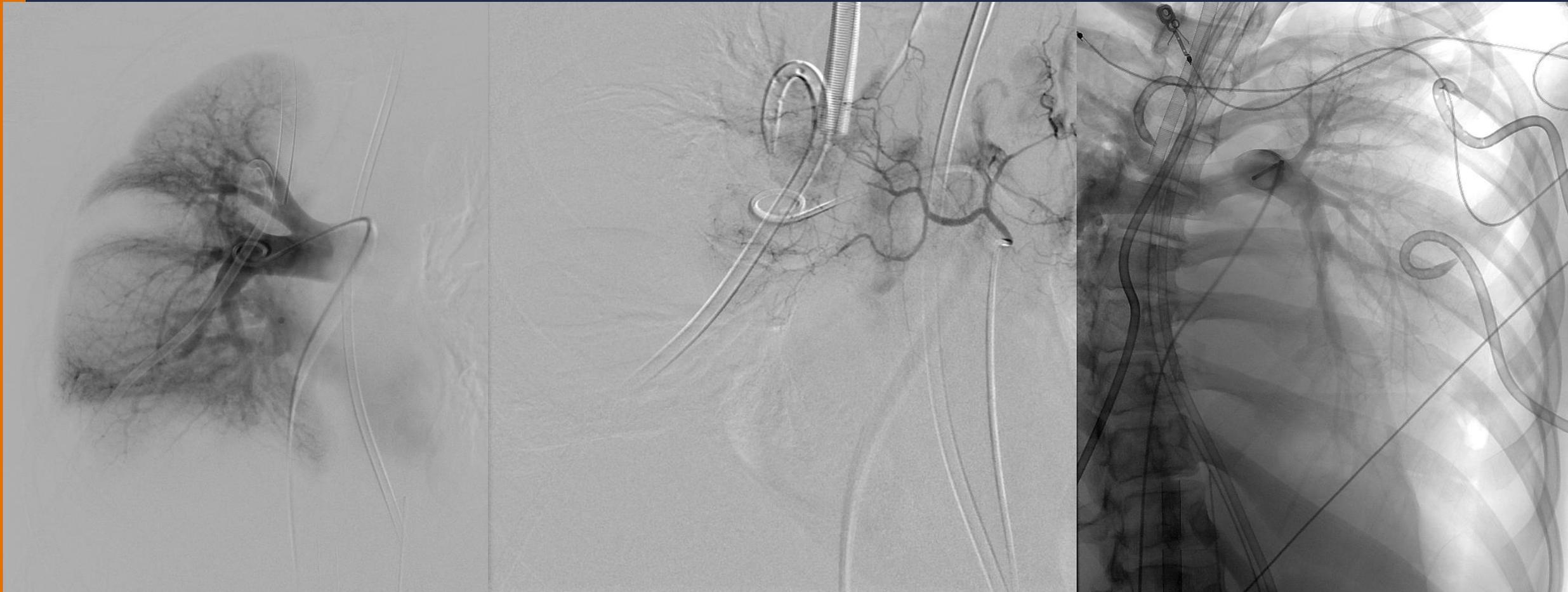
COVID and Clinical IR:

- Spontaneous retroperitoneal bleed

COVID and Clinical IR:

- **Resilience**

THANK YOU

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